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# The Israeli Armored Paradigm in the Yom Kippur War: An Evaluation

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THE ISRAELI ARMORED PARADIGM IN THE YOM KIPPUR WAR: AN  
EVALUATION

A Capstone Experience/ Thesis Project

Presented in Partial Fulfillment of the Requirements for

the Degree Bachelor of Arts with

Honors College Graduate Distinction at Western Kentucky University

By

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\* \* \* \* \*

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2011

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## ABSTRACT

The Yom Kippur War of 1973 saw Israel suffer nearly twice the casualties and triple the duration of the previous war. This is in contradiction to the fact that Israel, following its spectacular success in the Six-Day War of 1967, was in a far better position than it had been in 1967. This work will analyze the problem of Armor preeminence in the Israeli Defense Force first to prove the existence of preeminence, then to qualify its effect in the war and then to qualify its importance in the differing factors between the 1967 and 1973 Wars. This will be done with the purpose of improving the paradigm in historical evaluation of the Yom Kippur War as well as reiterating and reaffirming some older lessons.

Keywords: Yom Kippur War, Armor, IDF, Combined Arms, Tanks, 1973



Dedicated to my mother, Charna Leonhardt,

A good steward of her three talents.

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Lastly, thanks to the Lord for blessing me with all these.

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## CHAPTER 1

### INTRODUCTION

“There are two points I should like to make at once. The first is that we won the Yom Kippur War, and I am convinced that in their heart of hearts the political and military leaders of both Syria and Egypt know that they were defeated again, despite their initial gains. The other is that the world in general and Israel’s enemies in particular should know that the circumstances which took the lives of the more than 2,500 Israelis who were killed in the Yom Kippur War will never ever recur.” -Golda Meir<sup>1</sup>

The entire length of the Arab-Israeli War of 1967 spanned but six days, making it one of the shortest wars in modern history; yet what is more astonishing is that, despite the extraordinarily short duration of the war, Israel could have ended the war whenever it chose. In those six days, those one hundred forty-some hours, Israel captured the strategic Sinai Peninsula and the critical Golan heights thereby significantly increasing its land mass, annihilated not one but multiple Arab air forces and routed numerous Arab armies on a wide range of fronts. Consequently, it then seems almost paradoxical that given Israel’s improved position the Arab-Israeli War of 1973 saw both the war’s duration and Israel’s casualties more than triple. Yet it is not so much the increase in time and casualties that are the critical factors but that for the majority of the war the Arab

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<sup>1</sup> Golda Meir, *My Life* (New York: G.P. Putnam’s Sons, 1975), 420.

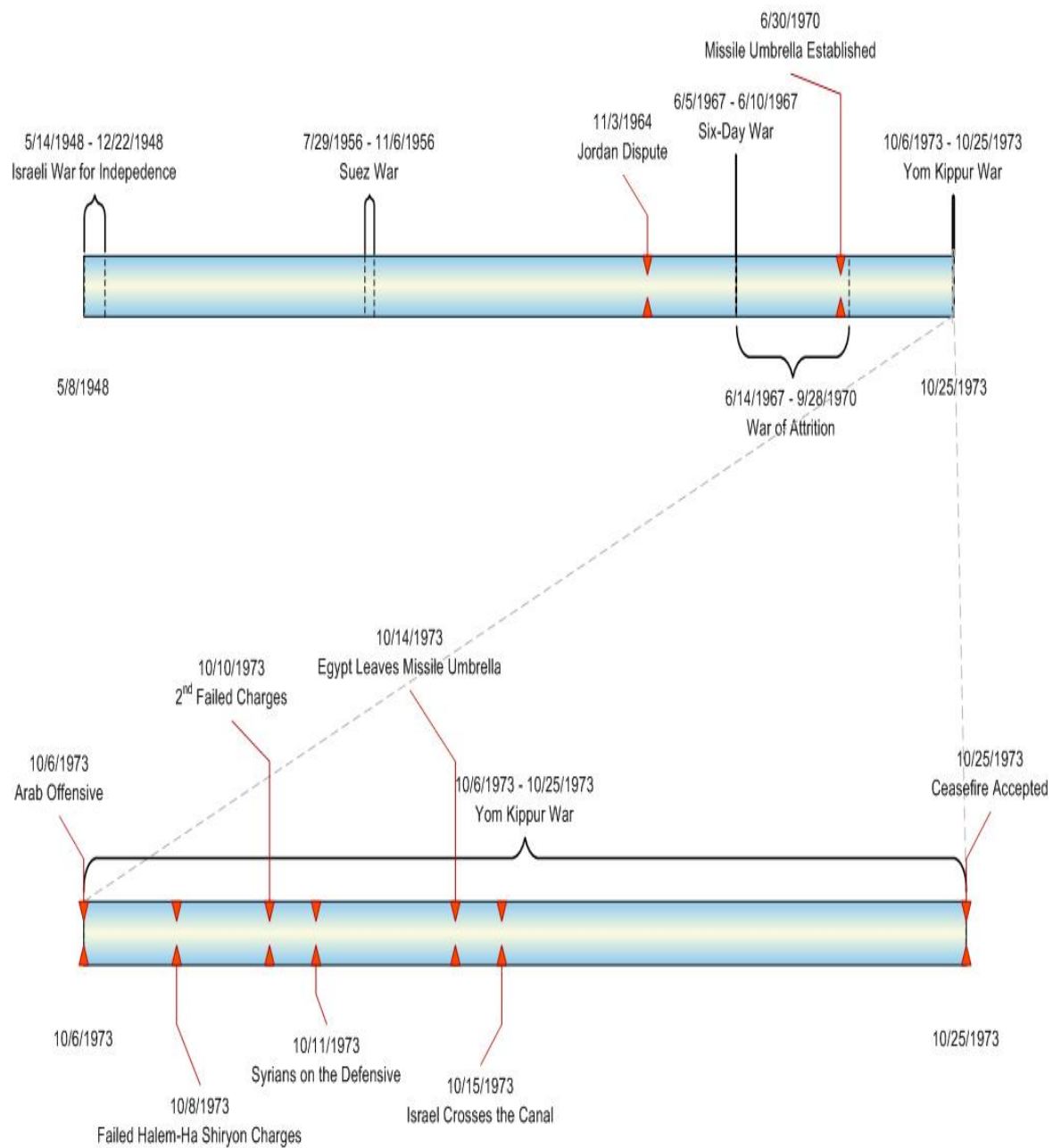
armies controlled the tempo and pace of the conflict. A number of reasons, which include the dramatic strengthening of various elements in the Arab armies and the adoption of a generally more casual attitude within the Israeli Defense Forces, worked to create this reversal of fates. The casual attitude or slackening of the Israeli army must be noted; for it is this element that was under the Israeli control and therefore makes it a major contributing factor for the demonstrably converse outcomes between the two wars. The considerable preeminence afforded the tank preceding and during the Yom Kippur War contributed the most to this more casual Israeli attitude.

That Israel did aggressively prefer the tank, and the resulting effects of that devotion, will be proved and analyzed in Chapters One and Two respectively, while Chapter Three will examine and explain the reason that this reliance is the superior consideration for the differences in the two wars. For now it must simply be acknowledged that relying on only one arm of the military has been foolish ever since Philip of Macedon created the first recorded combined arms force. The Mongols, who were a very successful cavalry force, illustrate an unusual variation of this rule. The Mongol armies combined cavalry with a missile auxiliary and thus melded two branches into one. A more appropriate example, though, of Israel's reliance on Armor are the medieval knights, who could run down any number of farmers, however they be assembled, but who were butchered when facing well-trained Swiss Pikemen. Even modern military examples moved away from total reliance on armored forces.

The IDF performed exceptionally well in the Six-Day War but not flawlessly. Yet there would be little difference in what the IDF actually accomplished had its

performance been indeed perfectly flawless. In contrast, however, Israeli performance in the Yom Kippur War did, indeed, contain several major flaws. In the next round, the same players coming off a big win just six years earlier committed what might be considered a rookie mistake, and the “amateurs” of the last war performed maneuvers that flummoxed the “professionals.” Literature is never as good as real life. A number of differences contributed to this reversal, but it is the question of Israeli Armor in the Yom Kippur War that begs examination. More specifically, did Israel create, for all intents and purposes, a single unit army and, if so, why did they do so in face of military tradition and modern examples? Did this actually harm the Israel Defense Force? Might the increased casualties have been avoidable if Israel had turned from sole reliance on Armor or were there other, more causative, events? Last, if these questions have been answered in the affirmative, when should they have realized that this was harmful, and what lessons can be learned from this particular aspect of the Yom Kippur War, if any?





**Figure 1.1. Timeline of Events.**

## CHAPTER 2

### ARMORED PREFERENCE

“After the victories then, the idea had taken hold that the tank was the ultimate weapon. In every battle zone the Arab infantry had caved in before massed tank charges.” -Ariel

“Arik” Sharon<sup>2</sup>

**Subsidiary Conclusion 1:** There developed a definitive preference for Armor within the IDF.

There were three areas within the IDF (Israeli Defense Force) that expose and define the preeminence Israel afforded armor. First, there was the simple financial preference of the tank within the Israeli Defense Force. Second, there was an increased reliance placed on the tank by the Israeli tactical and strategic planning for both the Sinai and Golan theaters. Lastly, whether due to purely military rational or some philosophical system of natural selection, the specific training and experience of the men who were assigned throughout the levels of the Israeli military, and especially the highest levels of command, migrated to and eventually revolved almost exclusively around Armor. Still, it is first necessary to trace the development of the tank’s role within the Israeli military history.

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<sup>2</sup> Ariel Sharon with David Chanoff, *Warrior* (New York, New York: Simon and Schuster Inc. 1989), 303.

Prior to the War of 1967, or “Six-day War,” Israel did not possess either the economic capability or the military training to produce or use tanks within its armed forces to any great degree. Israeli tank doctrine had, preceding the 1967 War, dictated that tanks were not to be used in direct assaults as they were both “too few, and too precious.”<sup>3</sup> Additionally, the performance of the tank in the War of 1956 or “Suez War” was so dismal that it led to a reevaluation of tank procedures.<sup>4</sup> In the events leading up to the 1967 War, Ariel Sharon in his autobiography describes an Armor engagement over the diversion of the Jordan River away from Israel in 1964. This event is noteworthy because it marks a time frame in the transition of the Israeli Armor. On November 1, 1964, Israeli tanks engaged in skirmishes against the Syrian tanks. It was an engagement which, put diplomatically, the Israelis “did not get the better of.”<sup>5</sup> Two days later, after Israel Tal worked with tank gunners on ability to target from a distance, Israeli forces once again engaged the Syrians and defeated them. This dramatic turnaround was attributed almost entirely to their newly developed targeting superiority, which Sharon notes would eventually be 5.5 times greater than the typical battle range of tanks.<sup>6</sup> This increased effectiveness, in turn, was accredited directly to Israel Tal, who was according to Ariel Sharon “a world authority on Armor.”<sup>7</sup> Ariel Sharon cites this date as the unofficial beginning of the 1967 War.<sup>8</sup> This becomes important as the 1967 War relies

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<sup>3</sup> S. L. S. Marshall, *Sinai Victory: Command Decisions in History's Shortest War, Israel hundred-hour conquest of Egypt* (New York, New York: W. Morrow 1967), 127.

<sup>4</sup>The Insight Team of the London Sunday Times, *The Yom Kippur War*. (Garden City, New York: Doubleday and Company, Inc., 1974), 234.

<sup>5</sup>Sharon, 167.

<sup>6</sup>Sharon, 167.

<sup>7</sup>Sharon, 182.

<sup>8</sup>Sharon, 167.

on the concept of Blitzkrieg in which mechanical branches of the military play a significant role.<sup>9</sup> Both the repelling of the Syrian tanks and implementation of Israel Tal's training signified Israeli growing security in armored combat.

That the IDF achieved the element of surprise in the 1967 War is unquestioned. What is important to note, nonetheless, is the role the tank played in that surprise. Much of the credit for the surprise lies with the Israeli Air Force, which having effectively destroyed the enemy air capabilities supported Israeli ground force operations. Of these ground operations the tank stands out as the principle offensive unit. In fact, following the initial rush and planning, the tank takes the credit for a large part of the majority of the Israeli victory. Israeli infantry were of use early on in the war for attacking targets they were already near, such as the Gaza strip and even farther south as in Sharm el Sheikh. Nevertheless, infantry participation in these battles was dependent on advance logistical consideration. After the initial plans had been carried through, Israeli tanks advanced beyond the infantry and dominantly drove home the advantage that the Arab rout offered the Israelis.<sup>10</sup> These gains by the Israeli Armor were central to securing the Sinai in its entirety. This paradox is important as Israeli military experts had originally found tanks not suited for direct assaults. The Israeli tank's original purpose had been to act as a counter to enemy Armor. As is the fluid nature of combat, however, military necessity required their usage against a wide variety of enemy situations in the 1967

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<sup>9</sup>Martin van Creveld, *The Sword and the Olive: A Critical History of the Israeli Defense Force* (New York, New York: Public Affairs, 1998), 160.

<sup>10</sup>Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War Volume I: The Arab-Israeli Conflicts, 1973-1989* (Boulder, Colorado: Westview Press, Inc., 1990), 54.

War.<sup>11</sup> With the apparent success of this strategy, Israel tank doctrine began to change after the 1967 War even further.

This increase in tank acuity coincides with increased Israeli military success peaking in the 1967 War. Figure One aptly demonstrates this as it shows that the wars Israel fought became shorter and shorter. Given that Israel had done better as the numbers of its Armor and aircraft increased, a logical prediction would be that Israel, undergoing an economic boom during the interim years of 1967-1973,<sup>12</sup> would, and did, go about further increasing the number of armored units in its arsenal. It would be the armored corps that received the largest increase in the IDF in the 1967-73 budgets.<sup>13</sup>

This is not in and of itself a particularly surprising or erroneous development. What is noteworthy and necessary to point out at this junction is that Israel was focusing on its armored branch to the neglect of its others branches.<sup>14</sup> See Figure Two. This brings the focus to the logistical proof of Israel's Armor preference. For instance, Israel increased its number of Armor brigades in part by converting mechanized infantry into armor.<sup>15</sup> The result was that the IDF, by the end of this transition, possessed twenty five brigades, over a third of which were Armor.<sup>16</sup> Furthermore, "the ratio of tanks to self-propelled artillery guns had increased to 5: 1 instead of 2-3:1 as it ought to have been if each armored division had been provided with its full artillery complement."<sup>17</sup> The

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<sup>11</sup>Marshall, 127.

<sup>12</sup>Amos Perlmutter, *Politics and the Military in Israel 1967-1977* (London, England: Frank Cass and Company Limited, 1978), 77.

<sup>13</sup>Creveld, 159.

<sup>14</sup>Sharon, 304.

<sup>15</sup>Creveld, 205.

<sup>16</sup>Trevor N. Dupuy, *Elusive Victory The Arab-Israeli Wars: 1947-1974* (Garden City New York: Military Book Club, 1978), 231.

<sup>17</sup>Creveld, 207.

**BALANCE OF COMBINED ARMS WITHIN THE TOTAL INVENTORY  
OF ARAB AND ISRAELI GROUND FORCES**

|   | <u>Major Weapons as Percent of Tank Strength</u> |              |              |
|---|--|--------------|--------------|
|   | <u>ISRAEL</u>                                    | <u>EGYPT</u> | <u>SYRIA</u> |
| A. Tanks                                | 100%   | 100%         | 100%         |
| B. APCs and Halftracks                  | 200%   | 100%         | 65%          |
| C. 100mm and Above Artillery            | 15%  | 90%          | 80%          |
| D. Mortars Above 100mm                  | 20%  | 15%          | 20%          |
| E. Anti-Tank Weapons                    | 15%  | 220%         | 115%         |
| F. AA Guns and SA-7                     | 30%  | 60%          | 55%          |
| G. HAWK, SA-2, SA-3, and SA-6 Launchers | 7%   | 20%          | 15%          |

**BALANCE OF COMBINED ARMS WITHIN THE ARAB AND ISRAELI  
GROUND FORCES ENGAGING ON EACH FRONT**

|                               | <u>Major Weapons as a Percent of Medium Tank Strength</u> |              |                    |              |
|-------------------------------|---|--------------|--------------------|--------------|
|                               | <u>Sinai Front</u>  |              | <u>Golan Front</u> |              |
|                               | <u>Israel</u>   | <u>Egypt</u> | <u>Israel</u>      | <u>Syria</u> |
| A. Tanks                      | 100%  | 100%         | 100%               | 100%         |
| B. Artillery                  | 15%   | 80%          | 20%                | 115%         |
| C. Anti-Tank Weapons          | 20%   | 380%         | 25%                | 400%         |
| D. AA Guns and SA-7           | ?   | 85%          | ?                  | 85%          |
| E. HAWK, SA-2, SA-3, and SA-6 | 10%   | 20%          | 10%                | 20%          |

**Figure 2.1. Balance of Forces.** Source: Anthony H. Cordesman and Abraham R. Wagner, *The Lessons of Modern War Volume I: The Arab-Israeli Conflicts, 1973-1989* (Boulder, Colorado: Westview Press, Inc., 1990), 53.

increase in the number of tanks not only neglects to insure the increase in other ground units but the conversion of ground units into Armor in and of itself demonstrates a particular preference of the Israel Defense Force for the tank. The greatest indicator, however, is that the fir force and Armor possessed in excess of 80% of all the IDF's available resources.<sup>18</sup> Specifically, 52% of the 1973 defense budget was devoted to the air force alone.<sup>19</sup> This means decreased training for infantry personal<sup>20</sup> (such as in the area of night fighting which had been a specialty of Israel up until this point)<sup>21</sup> and decreased purchasing of artillery in deference to the increase in Armor.<sup>22</sup> For all intents and purposes, this left the IDF solely reliant on the tank for ground combat and the Air Force for any combined arms support.

The second area in which Israel afforded the tank preeminence is in the allocation of strategic and tactical consideration. Due specifically to its performance in the 1967 War, the tank became the foundation for Israeli strategic planning.<sup>23</sup> This is itself not an erroneous development. Israeli tactics and strategy have to take into consideration the terrain they fight in. From the Byzantine mounted infantry, to the crusades, to Rommel, desert warfare has relied on mobility. Additionally, speed in war was essential as Israel had to consider the artificial time limit in which the U.N. could institute a ceasefire.<sup>24</sup> Yet even more important for Israel was the simple fact that Israel has a much smaller

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<sup>18</sup>Crevel, 206.

<sup>19</sup>Ahron Bregman, *Israel's Wars, 1947-93* (New York, NY: Routledge, 2000), 86.

<sup>20</sup>Frank Aker, *October 1973: The Arab-Israeli War* (Hamden, Connecticut: Archon Book, 1985), 84.

<sup>21</sup>Avigdor Kahalani, *The Heights of Courage: A Tank Leader's War on the Golan* (Westport, Connecticut: Greenwood Press, 1984), 49.

<sup>22</sup>Cordesman and Wagner, 21.

<sup>23</sup>The Insight team, 235.

<sup>24</sup>Crevel, 106.

population than its Arab neighbors and is surrounded. Put simply, they could not physically endure the cost of slugging it out with the Arab armies and so they had to be able to adjust their position constantly to maximize what forces they had. This constant readjustment of force also took advantage of the fact that Arab Command and Control, the ability for an army to relay information up and down command ladders in reaction to events, was very poor while in contrast Israeli Command and Control was excellent. For instance, in the 1967 War, it took a full day for the fact that Egypt was under attack to reach the top levels of the Egyptian command. This then provided Israel with enormous advantage to operate with the various Egyptian forces separately rather than as a coherent army. All of these points necessitated at the very least a superior consideration of the tank in their doctrines. This is itself not as important for consideration of the Yom Kippur War but needs to be stated in order to properly contextualize the succeeding points.

As dependent as Israel had become on the tank offensively, their defensive options also dictated that they rely on the tank. Moshe Dayan, the then minister of Defense, essentially summed up the Israeli response with the statement, “I had a theory that it would take them [Egypt] all night to set up the bridges, and that we would be able to prevent this with our Armor.”<sup>25</sup> The Bar-Shev line was a series of fortresses manned by infantry who would break the initial momentum of the attacking forces. Then reserves of Armor would roll into action to create a counter-momentum transferring the

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<sup>25</sup>The Insight Team, 139.



fight to the enemy territory with the air force aiding the tanks.<sup>26</sup> Some three hundred Israeli tanks would carry this out without any other combination of ground forces.<sup>27</sup> Their primary tactic would be the *Helem Ha-Shiryon* or a “mailed fist.” The Golan Heights defensive operations also retained this same idea.

The Principle of the Offense dictates that even defensive operations must be undertaken with the ultimate goal of achieving the offensive and obtaining the initiative. Israeli defensive and offensive tactics carried one common element: the tank was afforded the essential duty of attaining and retaining the initiative.

The upper level of Israeli leadership in the 1973 War demonstrates another indication of the “tank mania,” as it was referred to by Ariel Sharon. In general, Israel promoted officers with tank experience throughout the infrastructure of the IDF.<sup>28</sup> Moreover, the highest levels of the IDF were themselves tank commanders by training and experience, such as Lt. Gen. David Elazar, the Chief of Staff, and Israel Tal, the Deputy Chief of Staff, both of whom were decisive in the evolution of the Israeli Armored forces from its 1956 ineptitude to its status in 1967 as adepts. At the same time, Ariel Sharon who was instrumental in the creation and evolution of Israeli paratroops forces and one of the few generals who were not part of the “tank mania,”<sup>29</sup> was pushed out of the IDF. Albeit there were political motivations intertwined in this development, the causes are irrelevant when considering the result. This created a top-heavy tunnel perspective focused on Armor.

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<sup>26</sup> Moshe Dayan, *Moshe Dayan: Story of My Life*. (New York, New York: William Morrow and Company, Inc. 1976), 467.

<sup>27</sup>Perlmutter, 85

<sup>28</sup>Cordesman and Wagner, 54.

<sup>29</sup>The Insight Team, 244.

These points of logistical allocation, strategic and tactical reliance, and shift in officer expertise demonstrate a definitive penchant of armor over other forms of ground combat for the essential principle of the Offensive. This does raise an important question. Why did Israel believe the tank to be so useful? There were numerous reasons as to why Israel began to adopt this paradigm, some of which were mistaken from their inception, some of which were correct at the time of adoption but later became outdated, and some of which continued to be relevant concerns long after the 1973 War.

In addition to the assumed value of the tank, there remains another element as to why the Israelis began to use the tank with ever-increasing frequency. In every aspect of Israeli military a certain restriction must be considered, namely that Israel has a very small population, especially compared to the surrounding territories. Due to the small population the loss of even a few soldiers becomes significant. This is a fact recognized by both Israeli and Arab commanders. It is for this reason that the Egyptians initiated the War of Attrition during the years 1967-1970 during which they assumed that they could outlast the Israelis who they believed could not sustain the drain of both human life and the economic strain.<sup>30</sup> It is the fundamental reason for the Israeli standing order, “Move but try not to get hurt” since personnel are the “least expendable of Israeli military.”<sup>31</sup> For the pragmatists, this is a simple recognition that due to the reservist nature of the Israeli military, when the Israeli soldier is off duty he is within the Israeli economic system itself. Too many lives lost in war means that the economy itself is also hurt. If

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<sup>30</sup>Perlmutter, 45.

<sup>31</sup>Marshall, 72.

the economy cannot function, then the military cannot properly re-orientate itself.

Another factor to consider is that Israel, as a democratic republic, is more affected by public sentiment so there is a distinct possibility of resulting political repercussion.<sup>32</sup>

This might have influenced Israel to use the tank because it retains two important distinctions even apart from an imagined superiority or real value.

First, tanks are reparable and therefore replaceable. Though Israel did not possess overly amazing logistical support,<sup>33</sup> there exist reports of Israeli tank men who were hit in the 1967 War reporting no injury to themselves and whose tank was capable of rejoining the action with even moderate repairs. The likelihood that the tank would act as “armor” not only in offensive capacities but also in defensive protection of troops would logically be a huge psychological basis for Israeli tank preference. For a more practical purpose, armor allowed tanks to “operate under fire” in ways that artillery and infantry, mobilized or not, simply were unable to.<sup>34</sup> This reparability plays no major role in the 1967 War itself, but it is important to note that at least half of Israeli tank losses “were repaired and returned to *full operational status* after the war” (*italics added*).<sup>35</sup> This, therefore, makes the tank a far more durable option for the IDF.

Secondly, in the realm of civilian morale, “Armor” reads “lower” in relation to casualties. At the beginning of the 1973 War, Israeli casualties stood at 200 tanks lost and 1,000 dead. Two points are noteworthy: the number of tanks equal one-fifth of the casualties. This after three failed charges by Israeli tanks! It thus gives the illusion of a

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<sup>32</sup>Hassan El Badri, Taha El Magdoub and Mohammed Dia El Din Zohdy, *The Ramadan War, 1973*. (Dunn Loring, Virginia: T.N. Dupuy Associates, Inc., 1978), 23.

<sup>33</sup>Marshall, 19.

<sup>34</sup>Creveld, 160.

<sup>35</sup>Dupuy, 333.

lower casualty rate. This becomes an important element when considering military budgets that would have affected the arrangement of Israeli ground forces. Even after the 1973 War Israel was hesitant to enlarge their infantry branch because of this concern.<sup>36</sup>

These two factors represent a unique element of the tank. However, it must be remembered that Israeli command did not simply assume these two factors alone. As the quotation at the beginning of this section indicates, the tank was the practical choice as it supposedly operated effectively in every combat situation. It has been demonstrated that the Israeli strategy was already legitimately reliant on the tank strategically and tactically. After the 1967 War, Israel determined that though the tank was originally designed only to combat other tanks, it could also be used in other scenarios, including offensive actions against fortified anti-tank positions. This assertion is based on the performance of the Ugdat Ha-Okada Division and Israel Tal in the battle for the northeastern Sinai in which this armored division in fact took a fortified anti-tank position.<sup>37</sup>

The greatest reason though for the preeminence of the tank in the IDF's mentality was the 1967 War experience. As Ariel Sharon (who was by no means a tank man) stated, "In *every* battle zone the Arab *infantry* had caved in before massed tank charges" (italics added).<sup>38</sup> The tank, in fulfilling its role as cavalry, was more capable of engaging a broken enemy than was Israeli artillery and infantry. So if it is a matter of veracity concerning the tanks performance in the 1967 Six-Day War, the answer must be that it performed amazingly. That being said, the error in this reasoning will be detailed later.

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<sup>36</sup>Cordesman and Wagner, 56.

<sup>37</sup>Creveld, 185.

<sup>38</sup>Sharon, 303.

Since the tank could operate in nearly every scenario, since infantry were far slower than tanks and since fluidity was essential to Middle Eastern Warfare, Israel determined to focus its energies on Armor. Was this belief mistaken? The answer is a qualitative no. The tank was the best unit to rely on for the type of warfare Israel needed to undertake, but to focus on it to the exclusion of its other ground branches is where Israel went too far. Instead of the tank playing a major role in Israeli Warfare, it began to play all the roles. This exclusionary importance is the error that will be examined in Chapters Two and Three but always in the context of the premise that the tank was the best unit for Israel to place its energies. Yet even this error of the 1967 experience did not grow out of nothing.

As a result of the 1967 War's experience a number of original assertions concerning Armor performance were developed and incorporated into the IDF paradigm. Armed with this paradigm and fueled by those assertions, the IDF then began to focus on armor as their dominant ground unit for good or ill.

## CHAPTER 3

### ARMOR'S IMPACT

“They [missiles] do not constitute a revolution, but rather an additional hazard on the battlefield, calling for greater care in the operation of armor. Tanks must resort to sniping and function less like galloping cavalry.” –Moshe Dayan<sup>39</sup>

**Subsidiary Conclusion Two:** The Arab army's marked improvement in performance from the 1967 Six-Day War to the 1973 Yom Kippur War was due in large part to Israel's near total reliance on the tank.

The relative worth of any particular thing in war, whether weapon or strategy, lies in its definitive performance in actual conditions. In another time and another war in different conditions and between different combatants, 1940's Germany considered the tank to be the best weapon. The Germans effectively used the tank and specifically its mobility to encircle Russian infantry. In theory, on “paper,” these encircled troops were essentially forfeited. Nevertheless, the Germans found out that what should have happened in theory, based on “paper” estimates, was not what was happening in reality. Those forfeited Russian troops, surrounded as they were, easily and *consistently* broke through the thin encirclement of German tanks. The Germans had overestimated the strength of the encirclement by relying on a single flawed premise that an encircled enemy is a beaten enemy.

In the same war, in another theater with a different combatant, the French had

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<sup>39</sup>Dayan, 508.

invested heavy research and money into constructing the “impenetrable Maginot line.” They reasoned, to their eventual detriment, that even if by some fate the Germans were able to break through the Maginot line, the resulting cost in time and material losses would be far too heavy for what remained to constitute a serious threat. The veracity of this premise is not in doubt; even the Germans wholeheartedly agreed. So the Germans simply pivoted, bypassing said impenetrable defensive line and taking France in a matter of weeks. In this example, the French had correctly estimated the strength of the line but had been so focused on the impenetrability of it that they had not acknowledged the fundamental necessity that it required an enemy to attack it.

A number of reasons have been given in Chapter Two as to why Israel developed the tank so exclusively in its ground forces. The majority of those reasons, like the impenetrability of the Maginot line and superior mobility of the German tank, are soundly based on legitimate reasoning and thus function as veracious premises for the Israeli armored paradigm. However, the conclusion that the tank is the ultimate ground force weapon and thus should be focused on so exclusively is flawed. Again, the reason is not the veracity of Israel’s initial premises but the lacking of key additional and updated premises that provide functional context, the input of which would have altered the final conclusion. However, before the premises that formed the conclusion that the tank is the ultimate ground force weapon can be examined, necessity dictates the examination of the effect the conclusion had on the 1973 conflict.

Tanks played a key role in both theaters of the Yom Kippur War – on the Golan Heights and on the Sinai. Yet the effect the tanks had in those theaters was very

different. This difference is demonstrated in two very clear ways. First, in the northern theater, Israel not only defended against the Syrian invasion but moved onto the offensive, capturing additional territory. In the southern theater, the tank's only positive act was its crossing of the canal and raids against the Egyptian SAM sites.

On the 6<sup>th</sup> of October 1973, Syria caught the Golan Heights in a weakened position. Various reports describe how Israeli posts held off the Syrians fairly effectively. Some died and some were captured but the posts eventually fell. Israeli forces under Lt.-Col. Avigdor Kahalani responded to the Syrian surge. Kahalani had under his command approximately 177 tanks.<sup>40</sup> In five days time, with this force he not only brought the Syrian surge to a halt but also began to push them back and gain territory until the Israeli recognition of the ceasefire on the 24<sup>th</sup> of October. Due to the pressure Kahalani exerted on the Syrian forces, Syria made an appeal to Egyptian President Anwar Sadat for assistance. President Sadat attempted to provide this assistance and sent four armored brigades against Israel. This force left the safety of the Egyptian Missile Umbrella and was decimated by the IAF (Israeli Air Force). According to Egyptian Lt. Gen. Saad Shaazly, this cost them 250 tanks more than they had lost in the entire war up to that point while Israel had lost at most fifty.<sup>41</sup> Egypt would not attempt any further offensive pushes. It can thus be reasonably inferred that the Golan front further weakened the Sinai front thereby contributing to the eventual victory in the Sinai. The effectiveness of the tank on the Golan can be clearly understood only when

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<sup>40</sup>Dayan, 473.

<sup>41</sup>Saad El. Shazly, *The Crossing of the Suez* (San Francisco, California: American Mideast Research, 2003), 248.

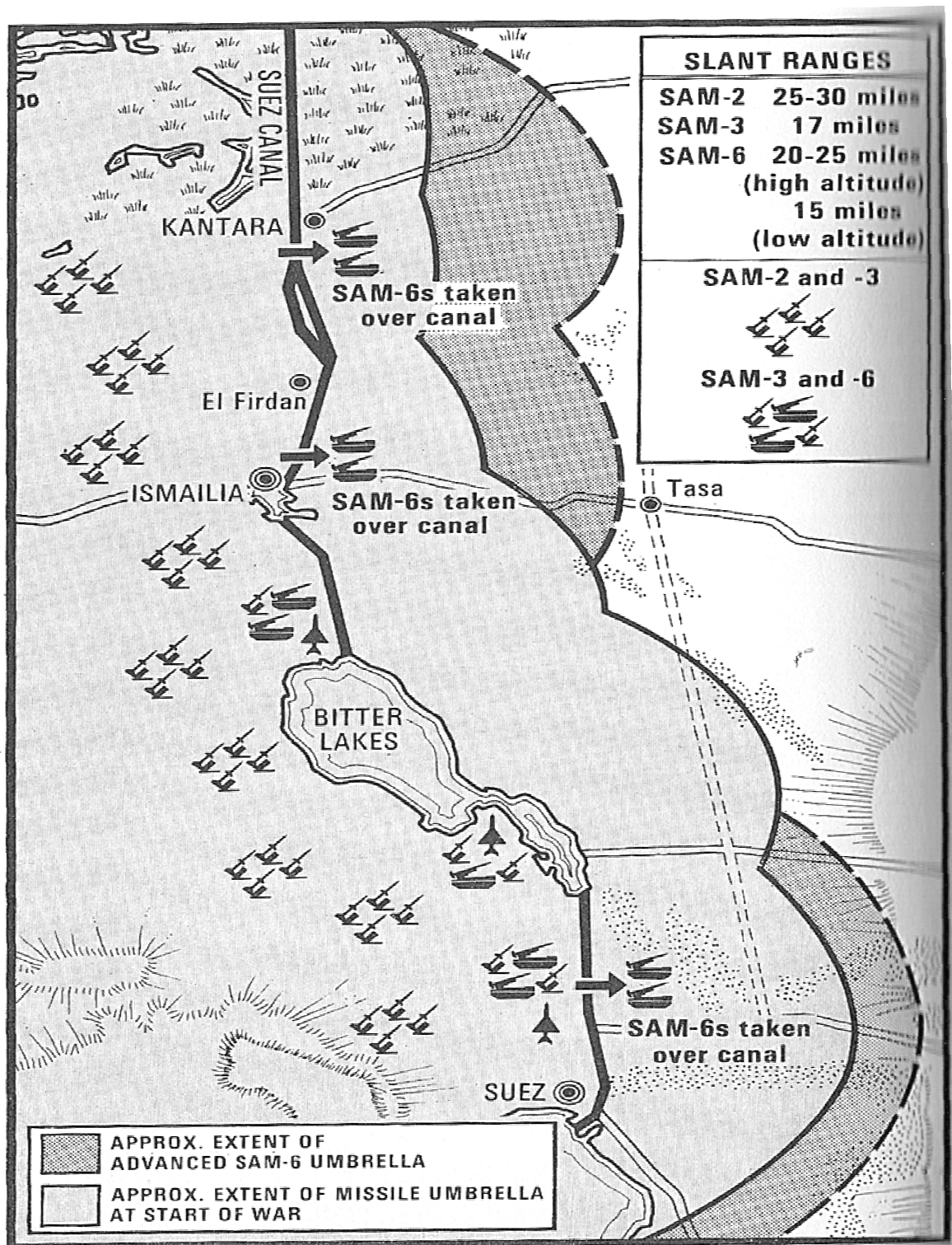


contrasted against the ineffective use of the tank in the Sinai.

The Egyptian forces crossed the Suez Canal on October 6, 1973. The first wave consisted of infantry whose sole purpose was to destroy any potential Israeli tanks, to be followed by the second wave whose purpose was to attack the Israeli bunkers of the Bar Lev line.<sup>42</sup> The Israeli tanks, per Israeli strategy and doctrine, responded. To best understand the Israeli response the major focus must be placed on the early *Halem Hashiryon* charges. On October 8, the Israeli tanks charged twice at the Egyptian forces, and twice the Egyptians repelled them. After these two charges analysis reveals that the brigades were for all intents and purposes annihilated. This required the Israelis to deal with a new tactical situation – the Egyptians would not be stopped at the canal. Ironically, this now inverted the two strategic positions as the canal became an obstacle for the Israeli forces, who could not really counter the Arab advance. One critical factor, however, hindered Arabs forces and restricted their advance. The Missile Umbrella, as illustrated in Map One, created a self-imposed limit for the Egyptian forces. Any Egyptian attempt to leave the Missile Umbrella resulted in its destruction by the IAF. The Israelis broke this impasse when they crossed the canal on October 15. Israeli forces bypassed the main Egyptian line and created a crossing, transporting over a handful of troops. The initial crossing was by no means military genius in that it could have been destroyed had the Egyptians deigned to do so; but the highest branches of the Egyptian government misinterpreted its importance and considered it no more than a political stunt. Because Egypt misinterpreted the intelligence, twenty-seven Israeli tanks crossed

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<sup>42</sup>The Insight Team, 140.



**Map 3.1. SAM Coverage.** Source: The Insight Team of the London Sunday Times, *The Yom Kippur War* (Garden City, New York: Doubleday and Company, Inc., 1974), 366.

over to the Egyptian side of the canal; seven remained to guard the bridgehead while the other twenty went on the offensive and destroyed two batteries of anti-aircraft missiles. This opened the Missile Umbrella for the IAF who took advantage to reinforce the Israeli bridgehead. This in turn led to the IDF encircling the Egyptian Third Army. This encirclement would become essential to the negotiations both during and after the war.

There is one last important aspect of the tank during the 1973 War. The shock of being on the receiving end of a preemptive strike and the revelation that the Arab soldier could be more than a competent opponent surprised more than just the IDF. The Israeli people as a whole were concerned. The Israeli government, panicking, asked for assistance from the U.S.A. In one of the largest airlifts in history, the American government, driven mainly by President Nixon, sent to Israel “virtually everything they asked for.”<sup>43</sup> This consisted mainly of ammunition, but both Israel and the U.S. focused on the one planeload of tanks.<sup>44</sup> It must be noted that a post-war analysis reveals that the necessity of American support was grossly exaggerated in the panic<sup>45</sup> and that the impact of the airlift was minimal.<sup>46</sup> The war had already shifted in favor of Israel by the time the airlift came in because Egypt had already reached the limit of its planning and preparations and now the warfare favored the better innovator which was Israel.<sup>47</sup> While the Israelis and the U.S. touted the plane load of tanks the loudest, it had the least effect on the actual war as the tanks were too far from the actual theaters to be put into effect,

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<sup>43</sup>Dupuy, 568.

<sup>44</sup>Dupuy, 571.

<sup>45</sup>Dupuy, 566.

<sup>46</sup>Sharon, 344.

<sup>47</sup>Abba Solomon Eban, *Abba Eban: An Autobiography* (New York, NY: Random House, 1977), 519.

while the ammunition reserves only may have reassured Israeli commanders that they would not lose their reserves.<sup>48</sup> What is important nonetheless is that the sign of American support helped to calm the fears that the unexpected Arab competency had created.<sup>49</sup> The importance of the tank as a representation of a foreign support and its effect in calming Israeli surprise cannot be overlooked even if it is minute.

At first glance, the Israeli tank performed amazingly in both theaters. On the Golan front, the IDF depended solely on tanks and Lt.-Col Khalani and the 7<sup>th</sup> still blocked the Syrian forces and even pushed them back and gained more land for the diplomatic haggling that would ensue after the war. On the Sinai front, confusion characterized the Sinai Theater early but Colonel Ben-Shoham and the Barak Brigade were able to hold off the Egyptians from advancing past the canal. The tank was also responsible for the opening of the Missile Umbrella. Lastly, Israel used tanks as a symbol of foreign support in order to sooth the Israeli people. This begs the question, is there really any reason to doubt the Israeli preference for the tank? To answer this question it is necessary to undertake a closer examination.

On the Golan front, tanks and only one unit of APC's formed the composition of Lt.-Col. Kahalani's forces.<sup>50</sup> This is important to note because it did limit his available options. The Syrian offensive, however, consisted only of tanks.<sup>51</sup> According to the concept of *Shin Va-Shin*, Israel designed their tanks to combat other tanks. So, even

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<sup>48</sup>Dupuy, 571.

<sup>49</sup>Sharon, 344.

<sup>50</sup>Kahalani, 28.

<sup>51</sup>Dayan, 509-510.

though the Syrians outnumbered them 3.5:1, the Israelis on the Golan suffered no real disadvantages. In fact, they held several advantages.<sup>52</sup> After the initial shock subsided, Israeli advantages included the defensive advantage and a proximity to resupply points which would allow them the opportunity to repair tanks that would normally be permanently out of action, which in turn allowed them to artificially extend their numbers.<sup>53</sup> Additionally, familiarity with the area allowed them to range in on every feature of the terrain. That being said, the Syrians strained even these advantages when they were able to bring artillery and their air force to bear.<sup>54</sup> As a rule, the IAF would have been more than capable of defending their forces against Syrian MIG's and even the artillery but the Missile Umbrella prevented this. This is an important point, as with their air force neutralized, the Israelis were forced to turn to infantry and artillery for any form of combined arms. Israeli artillery always suffered a numerical disadvantage, but even with this consideration, artillery officer Lt.-Col. Aryeh Mizrahi found the artillery at his disposal insufficient.<sup>55</sup> While a new tactic developed by General Adan, which played to the tank's superior mobility and wherein he placed his tanks in a line each in depth with a large reserve, met with success,<sup>56</sup> even tanks had to stop on occasion. When this inevitability occurred, though the IDF possessed 5,000 infantry, Lt.-Col. Kahalani found he had no infantry to act as a deterrent when they camped.<sup>57</sup> In a manner similar to the Syrian offensive, Kahalani did not have the infantry where he needed them. This was

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<sup>52</sup>Dayan, 509.

<sup>53</sup>Dayan, 509.

<sup>54</sup>Dayan, 375.

<sup>55</sup>Kahalani, 127.

<sup>56</sup>Dupuy, 474.

<sup>57</sup>Kahalani, 123.

especially important to act as a deterrent when the Syrian force began to employ infantry to counter IDF tanks as Lt.-Col. Kahalani began his offensive action.<sup>58</sup> That Lt.-Col. Kahalani only had one unit of APC made him vulnerable since an effective counter to the anti-tank missiles, the Sagger, was to use Armor and APC's in a 1:1 or 1:2 ratio in which the APC would be able to intercept Sagger units before they posed a threat to its Armor brethren.<sup>59</sup> In short, Lt.-Col Kahalani possessed insufficient artillery, infantry and APC's, leaving him vulnerable to Sagger missiles.

Yet despite all these obstacles, the IDF achieved victory in the Golan Theater. The point that must be understood is that this victory was in spite of the Israeli preference of the tank, not because of it. The Syrian initiative, the superior Syrian numbers, and the Syrian Missile Umbrella posed the greatest difficulties for Israel. The Syrian initiative allowed Syria to transition the war onto Israeli battlefields, a tenuous situation for Israel, but this also worked against them as Israel used their knowledge of the terrain and its proximity to maximize their output. The superior Syrian numbers did not aid the Syrians very effectively because the Syrians deployed their tanks against vehicles designed for their destruction. This is reminiscent if not almost as foolhardy as the Israelis deploying tanks against the Egyptian Sagger on October 10, with the caveat that the Syrians at least outnumbered their opponents. The Missile Umbrella's neutralization of the only other effective arm of the IDF severely limited Israeli options. The last two difficulties are the most significant as they revolve almost exclusively around the issue of Israeli tank preference. On October 11, the Syrians, when forced on the defensive, responded with

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<sup>58</sup>Kahalani, 117.

<sup>59</sup>Dupuy, 488.

organized Sagger missile fire against the Israeli Armored spearhead, exacting a heavy toll from Israel.<sup>60</sup> More explicitly, this demonstrated that the tank, as a solo arm of the IDF on the Golan, could not properly deal with the situations the Israelis found themselves in. While the Israeli tanks had been capable of dealing with the initial offensive, as they pushed forward, the limited number of APC's began to become more and more of a crucial factor. If the Syrians had led with infantry equipped with the Sagger missiles in their offensive, this theater would have gone quite differently. This assertion is based on the previously stated assertions that the Sagger missile exacted a significant toll on IDF armor from Syrian infantry, that the SAM's reduced the effectiveness of the IAF, that the Israelis did not possess sufficient numbers of both APC's and Artillery as an alternative to air, and most notably that the Israelis had successfully used a similar strategy in the Sinai theater. Even if Syria could not defeat the IDF armor on the Golan with only Sagger-equipped infantry, the IDF had won a victory on the most tenuous of developments. It is, therefore, not so incredible a proposition that the addition of Sagger-equipped infantry on the Golan would have had a dramatic effect on an already difficult Israeli position, at the very least undermining the Israel counter-attack. This is central to any evaluation, as Israel had no control over the composition of their enemies, and had this adaptation been employed, Israeli options would have been far more limited than they actually were.

This brings to bear the focus on the Southern or Sinai Theater. The Sinai Theater provides the most demonstrative evidence of the damage resulting from relying solely on

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<sup>60</sup>Dupuy, 465.

the tank in the 1973 War. A work on tanks in the Yom Kippur War would be incomplete without analyses of the disastrous charges of the Sinai. These charges were based the tactic *Helem Ha-Shiryon*, or “armored shock” tactic, which itself was based on the belief that armored charges could break the enemy line much as a hammer could break through a twig.

It is of consequence to note prior to analyzing the use of this tactic in the 1973 War that it was based on experience from the 1967 War, in which Armored forces using this technique were very successful. In the battle over Rafah, Armored brigades under then Gen. Tal used their longer range to destroy the Egyptian anti-tank weapons. Israel took this as vindication of Brigadier General Tal’s theories, though it should have taught the IDF that tank attacks of infantry lines were risky.<sup>61</sup> Additionally, there exist reports such as the one in which an Egyptian Commander Naby abandoned his tanks when he heard Israeli tanks coming, specifically because of reports he had heard earlier about Armored exploits at Abu Agelia and Bir Hassna.<sup>62</sup> Nevertheless, there were important variations between the 1973 experience and the 1967 experience. First, the Israelis fought an unprepared and confused Arab army in 1967, not the aggressive and coherent force in 1973. Second, the IDF possessed air superiority in the 1967 conflict which allowed them to attack ground targets with near impunity; this they lacked in 1973.<sup>63</sup> Though Israel recognized that their aircraft had done a remarkable job on the Arab air power, they failed to notice the result on the Arab’s overall combat ability.<sup>64</sup> Third, the

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<sup>61</sup>Creveld, 185.

<sup>62</sup>Dupuy, 276.

<sup>63</sup>Creveld, 112.

<sup>64</sup>Dupuy, 346.



Egyptian forces carried the Sagger missile weapon representing an increased technological threat. These factors played a crucial role in the development of the early phase of the war.

The end result of these variations and the Israeli preference of the tank are best demonstrated in the Israeli counter-strikes. By October 7, Israel had lost nearly two-thirds of its Armor on the Sinai to futile counterstrikes using the *Halem Ha-Shiryon* model. On the 8<sup>th</sup> of October, the Israelis launched the first major response against the Egyptian forces. In keeping with the Israeli overall strategy to regain the initiative, Israel countered with the tank once again using the now obviously flawed tactical idea of *Halem Ha-Shiryon*. They expected the Egyptian line to break and then for the Egyptians to retreat. While three divisions under commanders Bren, Arik, and Albert were tasked with the counterstrike, only Maj. Gen. Adan's forces actually contacted the enemy at the Battle of El Firdan. While some forces did succeed in breaking through the enemy lines, their numbers had been reduced to such an extent as to render them ineffective. Furthermore, the Egyptians gave no indication that simply breaking their line would force them to retreat. When the Israelis broke through, the Egyptians around the Israelis spearhead continued to fire, forcing the Israelis to withdraw. On October 9, the IDF launched an attack with the 190<sup>th</sup> Armored Battalion. It was annihilated by antitank rocket fire which reduced the 190<sup>th</sup> to only two tanks.<sup>65</sup> In the end, the Israeli counterattacks were neither successful nor organized, as demonstrated by Adan's failed counter and Sharon's failure to even contact the enemy.<sup>66</sup>

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<sup>65</sup>Aker, 94-95.

<sup>66</sup>Dayan, 510.

Israel's armor dependence tactically, strategically as well as logistically resulted in the destruction of more than two-thirds of their Sinai Armor. This effectively delayed Israel, at the very least, two days from the time Israel realized its mistake, till it effectively covered this weakness. Their forces in the Golan, while they did not suffer as badly as the Sinai forces, were still susceptible to the same danger. Additionally, both theaters suffered small sporadic losses, as tanks went about their normal routines but without the cover of infantry. The only benefit that can be ascertained from Armor in these theaters is their results against the Syrian tank offensives, the raid against the Egyptian SAM's and the positive effect on Israeli morale. However, their usefulness and positive effect in these areas does not negate the overall effect they had on the war. In short, Israel total reliance on the tank as their solo ground force resulted in the overall weakening of their theaters to Arab penetration. Therefore, the Israeli tank reliance was a liability.

## CHAPTER 4

### ISRAELI NEGLIGENCE

“Our strategy always has been to force the enemy to fight on our terms; but we never expected them to cooperate.” –Egyptian Lt . General Saad El Shazly on the two failed Israeli tank “cavalry charges”<sup>67</sup>

**Subsidiary Conclusion Three:** The Israeli preoccupation and dependence on Armor is the definitive, controllable and degenerative factor on the part of the Israeli Defense Force, resulting in a demonstrable shift in casualties from the 1967 and 1973 wars.

This assertion is more difficult to prove as it is necessary to differentiate between those troubles resulting directly from the first strike by the Arab forces and those troubles resulting from the war as a whole. It would be good to emphasize that this is the definitive factor *in which Israel possessed control*. The most significant *contributing* factor was Israel’s inability to penetrate the Arab Missile Umbrella with their air force. The difference between these two factors are that the composition of its ground forces was within Israeli control, whereas implementation of the Missile Umbrella was a factor to which the Israelis simply had to respond.

The specific result of the reliance on the tank is this: primarily, Israel had to rely

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<sup>67</sup>Shazly, 240.

on the air force for any combined arms action. Through the use of Surface to Air Missile systems and Saggers, the Arab forces neutralized the entirety of Israel military. Israel could feel this limitation, to some extent, in Arab offensive action, but, it was mainly felt in Israeli counter-offensive actions. Because Israel could not obtain the initiative, given that the various missile weapons, in essence, neutralized Israel's main forces for both ground and air, the war was prolonged and they were forced to concede some territory in the Sinai. As Israel is a small country with a proportionately small population, the Israeli military is based on the Reserve System, which necessitates taking its soldiers out of the economic system. This means that a protracted engagement progressively endangers Israel the longer it continues. This, coupled with the political reality that both the Arabs and Israel must race against an artificial clock to see which combatant could obtain the better negotiating position before United Nation interposition, means that Israel could not afford the time that a protracted engagement would take, particularly one in which they could not gain the initiative or which might place them in the position of losing the Suez Canal, which Moshe Dayan termed the "one of the best anti-tank ditches available."<sup>68</sup> Additionally, loss of the Suez Canal would severely limit Israel strategic options to utilize the canal as a deterrent in the future by eliminating Israel's ability to preemptively strike Egypt should the need arise. In short, the Israelis would have lost a huge tactical advantage or bargaining chip for the subsequent and inevitable negotiations. Thus the neutralization of Israeli forces by the missile because of their near total reliance on tank and plane imposed an additional and, more importantly,

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<sup>68</sup>Chaim Herzog, *The War of Atonement October, 1973* (Boston, Toronto: Little, Brown and Company, 1975), 231.

unnecessary limitation on the 1973 War.

Brigadier General Israel Tal further attests that the *Halem Ha-Shiryon* ideal did not work and did in fact hurt the IDF. In the preface to Avigdor Kahalani's *The Heights of Courage*, Brigadier General Tal states very clearly that "Israeli armor was forced to contain the enemy offensive by piecemeal counterattacks against large, well-organized forces—in direct contradiction to the principles of armored warfare."<sup>69</sup> He contends that the turning point for the war in the southern theater was the 14<sup>th</sup> of October, on which the IAF destroyed three hundred Egyptian tanks in the last major Egyptian offensive. Also at this time, the IDF began to incorporate increased combinations of military branches.<sup>70</sup> Tal attributes this initial difficulty to "a series of errors on Israel's part."<sup>71</sup> According to Tal, the series of errors includes a failure to mobilize reserve forces and the employment of the massive number of modern weapons systems by the Arabs against the tanks and aircraft.<sup>72</sup> Another is the fact that Israel did not strike preemptively in 1967 as it had in the 1973 War. These are the primary controllable factors affecting the outcome of the 1973 War. As such, it is necessary to examine each to demonstrate that the preference of armor was the most definitive factor.

It must be understood that although it was within Israel's control to attack preemptively, as they did in the 1967 War, they did not do so by design. However, though the Arab preemptive strike did place Israel at a disadvantage, Israel benefitted more later on by letting the Arab armies strike first than if they had struck first. The

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<sup>69</sup>Kahalani, xi.

<sup>70</sup>Dupuy, 489.

<sup>71</sup>Kahalani, xi.

<sup>72</sup>Kahalani, xi.

support for this statement consists of a number of reasons, some of which were discernable in 1973 and some only comprehensible with the benefit of hindsight. The original reasons for not striking preemptively were far more political than military. Then Prime Minister Golda Meir simply did not believe that Israel could afford the political cost that a preemptive strike would have entailed.<sup>73</sup> She based her decision on the 1967 conflict, and this consideration does bear some credence. Yet the political cost or benefit is not why Israel's Armor dependence is the more significant factor. Had Israel attempted a preemptive strike, they might very well have overcommitted their tanks before realizing their vulnerability to the Sagger missile systems. Israel's Lt.-Col Kahalani represents the best example. His main advantage lay in his prepared defensive operations, which were coordinated to utilize air support. However, had he attempted to strike out offensively, he would have negated both of these major advantages. There is of course the consideration that Israel would have had no problem mobilizing their forces and therefore might have had more infantry and other combined arms possibilities,<sup>74</sup> but this does not take into consideration the fact that the Israelis were still under the influence of the *Halem Ha-Shiryon*. If the Israelis had attacked, it is not unreasonable to infer that the Israelis would have led with the tank even though they had alternate arms. For the results of such a fictional offensive, the Sinai charges represent the best support for this inference. This also does not take into account that the overall quality of the alternate branches, especially infantry, was still weakened and, as such, the inclusion of an

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<sup>73</sup>Meir, 426-427.

<sup>74</sup>Cordesman and Wagner, 52-54.

increased number of them would not necessarily have overcome the Armor handicap.<sup>75</sup> It is possible, if not probable, that the Israelis might still have won in a preemptive offensive action. Still, there remains a significant factor inherent to the Arab forces regardless of whether or not the Israelis struck first and succeeded in achieving and utilizing surprise as they had in the 1967 War. The Arabs possessed a large number of anti-tank weapons and demonstrated that they were adept at using them.<sup>76</sup> A preemptive strike would not likely have altered this reality and might actually have led to disaster, as Israel was reliant on Armor for their aggressive actions and would have led with the *Halem Ha-Shiryon*. The conclusion to be drawn then is that Golda Meir's hesitation could very well have unintentionally saved the Israeli armor corps or at the least prevented the cost of additional losses by waiting. The net result of waiting and not striking preemptively, which also had the benefit of generating political capital, was even from a purely military perspective a net positive decision and not a liability.

The mobilization time of the Israeli reserve forces has also come under sharp criticism by both Israeli civilian and military analysis. The criticism states that if Israel had instituted a more efficient mobilization system, Israel would have had their reserve forces fully mobilized to their respective theaters much quicker. The additional firepower, it is argued, would have allowed for more effective fighting and thus lower casualties and increased territorial gains. This is, however, not the most critical controllable factor facing the Israeli army. This is not to say that their mobilization was perfect. Unlike the issue of the preemptive strike, the mobilization factor did contain

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<sup>75</sup>Cordesman and Wagner, 55.

<sup>76</sup>The Insight Team, 170.

some relatively important and controllable defects that could have been improved. A timely Israel mobilization necessitated an advanced warning to Arab attack. When Israel failed to receive an advanced warning, a significant delay in mobilization occurred. Like the inherent difficulty in Israel's ability to launch a preemptive strike, however, even if Israel had been able to mobilize their forces more quickly it would have still had the same net effect that a preemptive strike would have had. Again, Israeli generals would have led with their tanks, which would have had increased numbers but would not have affected the general outcome. They would have used the *Halem Ha-Sharyon* tactic with their increased numbers and left the infantry behind, and the Egyptians would have stopped the Israeli charge. Even had the Israeli generals abandoned their exclusive tank preference and employed their infantry, there would have been very little significant difference, as it must be again noted that Israeli infantry ability had deteriorated demonstrably.<sup>77</sup> In sharp contrast, the increased number of infantry would have helped Lt.-Col. Kahalani in the Golan Theater when his tanks needed to rest. Nevertheless, by then infantry would not have had as a significant effect, in relation to the deployment of Armor, as it was the momentum of success itself that was transitioning the flow of battle for Israel. The essential point is that while Israel could have had a better mobilization the problem was not really in how many troops they had or what type but that Israel did not use what troops they had properly.

The earlier mobilization of troops would not have helped the IDF if they still were under the mistaken assumption that the tank was the only necessary ground force and the

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<sup>77</sup>Aker, 84.



*Halem Ha-Shiryon* the only necessary tactic. Brigadier General Tal's second point concerning technology is, however, worth further inspection. To what extent did Israel neglect to take into account the increased technological aspect of war? As has been stated before, Israel had already conceded that its air force was not effective within the limits of the Missile Umbrella. Nobody, though, could judge the anti-tank weapons as easily as the Missile Umbrella. Since the Egyptians did not even know how effective the Sagger would be,<sup>78</sup> it seems sufficient to say that Israel could hardly have been expected to know as well. That said, it must be understood that the problem with Arab ground forces is NOT the result of increased technology but a failure in tactics.<sup>79</sup> This assertion is further reinforced by Moshe Dayan as well.<sup>80</sup> This focus helps define the most dynamic element of the war within the control of Israel, the composition of their forces.

As indicated previously, the history of warfare dictates that a reliance on any single branch for warfare is, to say the very least, imprudent, especially considering that Israel had ample evidence that the Missile Umbrella had compromised their Air Force. Therefore, more than the refusal of a preemptive strike, the mobilization factor, or the technological progress of missile weapons, the reliance on the tank to the detriment of all else was the most controllable contributive factor to the increased causality and difficulty of the Yom Kippur War.

Israel could not control the enhancement of the common Arab soldier, the composition of the Arab weaponry, or the existence of the Missile Umbrella. Even if

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<sup>78</sup>Badri, Magdoub and Zohdy, 74.

<sup>79</sup>Cordesman and Wagner, 57.

<sup>80</sup>Dayan, 508.

they had worked relentlessly on neutralizing the Missile Umbrella, it would have been a far more costly endeavor than simply rearranging the composition of its own forces or using the proper tactics. The neutralization, again a very difficult process which, it must be noted, had failed at least three years previously, would also not have actually removed the fact that the only ground force that Israel had to support itself was vulnerable to one particular type of weapon.

Israel, during the duress of the war, had been able to determine a feasible counter to the anti-tank missiles within days. It involved simply the use of combinations of ground forces.<sup>81</sup> Since it was far easier for Israel to counter the missile threat with ground forces instead of air forces, since the mobilization factor while capable of improvement simply would have resulted in essentially the same results, and since a preemptive strike was not feasible or potentially profitable under the conditions, the Israeli dependence on the tank was the greatest factor to increased casualties and risk controllable by Israel.

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<sup>81</sup>Cordesman and Wagner, 60.

## CHAPTER 5

### LESSONS LEARNED

“The war emphasized, once again, the perennial requirements for balance and continuous coordination of land, sea and air efforts... The requirements for infantry (in this case mechanized) continue to pertain. The ground-combat soldier is still needed... The requirement for reliable battlefield intelligence endures... Although the foregoing are, to me, the principle Yom Kippur War lessons, there are certainly others.”<sup>82</sup> -Maj. Gen.

George S. Patton

**Conclusion:** The Israeli reliance on the tank was the most definitive, controllable, deleterious factor in the Yom Kippur War. There are two phases which led to this error. The first phase consisted of incorrectly reading the evidence and experience of the 1967 War. The second phase consisted of the Israelis not appreciating the changing times. This takes place on June 30, 1970. The lessons to be learned from this are 1) a reaffirmation of combined arms doctrine, and 2) confirmation of the necessity in realizing the assumed factors in a paradigm.

There are two points that endangered the IDF's tanks and subsequently endangered Israel above and beyond the normal concerns inherent in war. The first point

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<sup>82</sup>Aker, 2.

was the inability to properly support the tank in a combined arms manner due primarily to Israeli negligence in insuring the competency of its artillery and infantry branches and subsequently to the neutralization of the IAF by the creation of the Arab Missile Umbrella. The second point was the equipping of a large percentage of Arab infantry forces with Sagger anti-tank missile. It is necessary to note the impact resulting from the combination of *both* of these points. Had there been no Missile Umbrella, thereby enabling the IDF to rely on the full support of the IAF, and if the Arab Infantry did not possess Saggers, then the Arabs would not have acquitted themselves nearly as well against the Israeli charges and counters, and so it can be concluded that both were necessary for the quality of the Arab performance. These last postulations result not just from mere speculation, but derive specifically from similar examples on the Golan and on the Sinai. Lt.-Col. Kahalani had no air coverage but faced an opponent who did not generally use the Sagger missile. He eventually prevailed. When he began engaging more Syrian infantry possessing anti-tank weapons he had the IAF and continued to prevail. Conversely, when the Arabs possessed both Saggers and the Missile Umbrella, as they had on the Sinai, Israel could not defeat them. The only Israeli victories lay in the attempt by President Sadat to reinforce the Golan front when he left the Missile Defense and in the Israeli crossing when Egypt had no infantry and Saggers to defend their Missile Defense system.

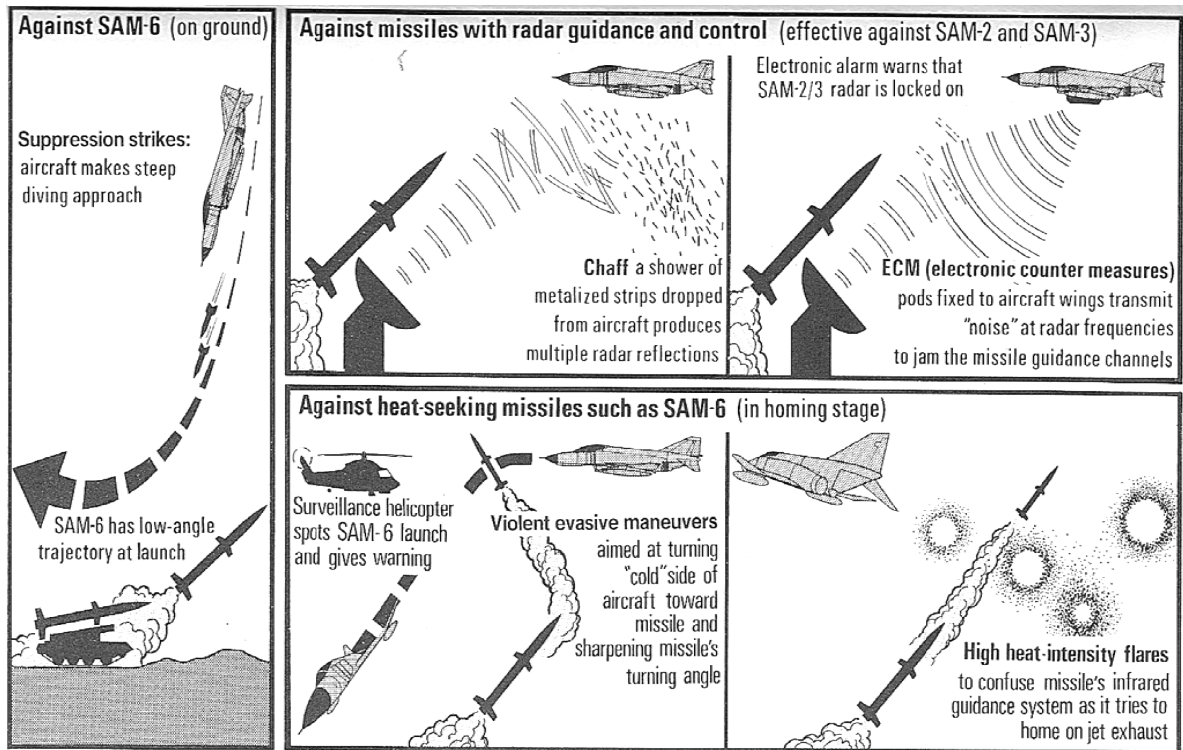
This demonstrates that Israel was not foolish or imprudent to prefer the tank subsequent to the 1967 War. Given the history of the area, the issue of mobility, their 1967 experience and given certain examples even from the 1973 conflict, the tank was

the best unit for the IDF to develop, though not to the exclusion of its other ground forces. However, the situation did not remain in stasis. The first new indicator was on June 30, 1970 when the Missile Umbrella definitively demonstrated its effectiveness by routing an IAF offensive. That the IAF was decidedly ineffective in areas controlled by the Missile Umbrella is uncontested. Furthermore, Israel was aware of this potential downfall as early as the end of the War of Attrition.<sup>83</sup> This demonstrates that Israel understood that air power in the Middle East had undergone a shift. The next question to consider then is, why did Israel not use the interim three years to develop countermeasures? Here, history created an adverse effect. First, there existed several countermeasures developed from America's experience in Vietnam with the SAM-2 and SAM-3 weapons that Israel thought would work. However, the new SAM-6 series marked a sharp increase in effectiveness. The SAM-6 proved resistant to measures that had worked for the SAM-2 and SAM-3 series such as chaff, ECM's, flares and violent evasive maneuvers.<sup>84</sup> This, however, they did not find out until they again attempted to use their aircraft. See figure two for further description. Underlying the IAF's problem with the SAM's is the premise that the Egyptian land force could not stand against an armored offensive. They believed that the *Halem Ha-Shiryon* would more than offset their lack of air cover. Unfortunately, the missile made its debut into Egypt's land forces at this time as well. While the equipping of the Sagger Missiles to infantry was no great secret, it must be noted that not even the Egyptians had anticipated how effective the

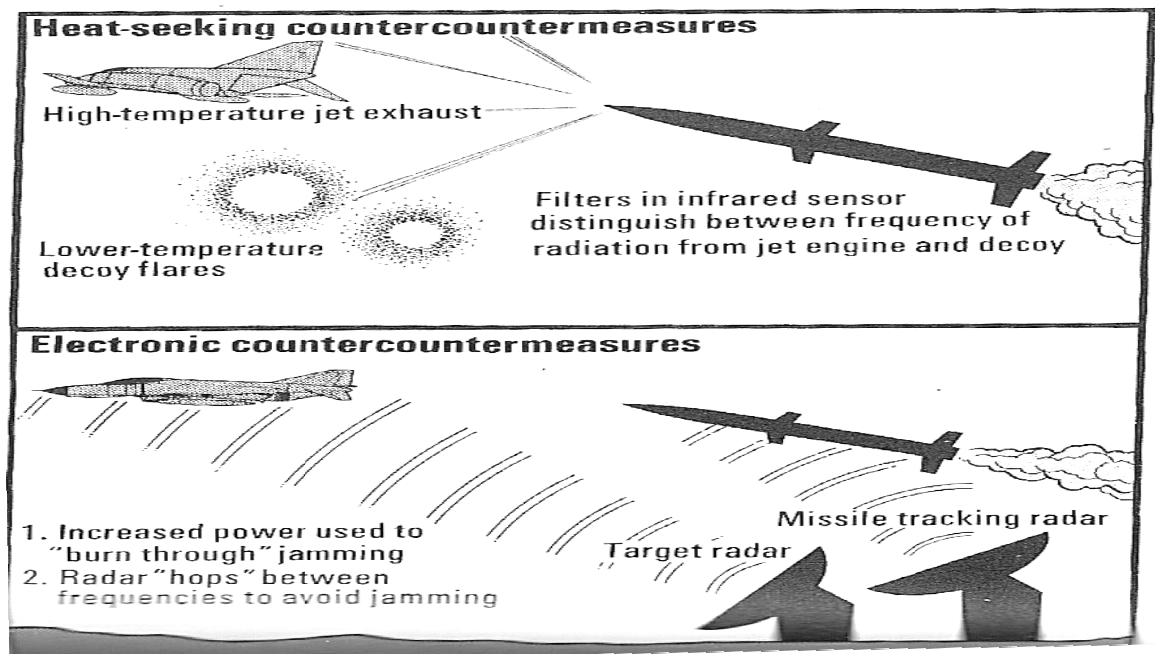
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<sup>83</sup>Dayan, 508.

<sup>84</sup>The Insight Team, 67-68.



### ... and Arab countercountermeasures



**Figure 2. IAF Alternatives and Arab Responses.** Source: The Insight Team of the London Sunday Times, *The Yom Kippur War* (Garden City, New York: Doubleday and Company, Inc., 1974), 465.

Sagger Missiles would be, and so accordingly Israel would not have necessarily have known this either.<sup>85</sup> Nevertheless, Israel should have realized that this would at least compromise their tanks to a certain degree. In short, Israel failed to connect this possible neutralization of its armor with the definitive neutralization of its air force.

Israel could not control the enhancement of the common Arab soldier or the composition of the weaponry the Arab soldier was now using, and they could not stop the Missile Umbrella system. Even if they had worked relentlessly on neutralizing the Missile Umbrella, it would have been a far more costly endeavor than simply rearranging the composition of its own forces. The neutralization, again a very difficult process which they had failed at for at least three years previously, would also not have actually negated the fact that the only ground force that Israel had to support itself was vulnerable to a particular type of weapon. Israel, during the duress of the war, had been able to determine a feasible counter to the anti-tank missiles within days. It involved simply the use of combinations of ground forces such as, but not limited to, a tank and APC. Since it was far easier for Israel to counter the missile threat with ground forces instead of air forces and given that a preemptive strike was not feasible or potentially profitable under the conditions, the Israeli solo reliance on the tank was the greatest contributive factor to increased casualties and risk controllable by Israel.

The lessons to be learned from this are twofold. The first is to reiterate the necessity of Combined Arms combat in dramatic fashion. Israel did not need to relearn this lesson per se. They simply placed their combination in Air and Armor. This brings

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<sup>85</sup>Badri, Magdoub and Zohdy, 74.

the focus to the second lesson. Israel's critical fault in this lay in not associating the recognized compromising of their air force with the inherent compromising of their ground forces and the necessity of developing an alternate branch.

Most essential, however, is the fact that this understanding must premise any analyses of the Yom Kippur War, especially when comparing it with the Six-Day War. Too much attention has been given to factors such as whether or not Prime Minister Golda Meir should have launched a preemptive strike or the reserve system's performance and whose greatest virtue seems to be the ease by which blame may be shifted to a political personage. The reason for this criticality revolves around the political and cultural effects of the Yom Kippur War. Egyptian performance in the war would allow President Sadat the political capital to enter into a peace accord with Israel. This enormous event in Middle East history, though, must be understood to have its roots in the fact that Israel granted Egypt an enormous advantage in the Yom Kippur War.

Israel's performance in its 1967 War was amazing. This makes the results of the 1973 War all the more startling. Their reliance on the tank was the main controllable contribution to the differences in performance. It resulted from a small amount of arrogance but mostly a simple misreading of experience. This simple misreading turned into negligence on June 30, 1970, when it became apparent that they could not rely on their air force to support their Armor. At this point, Israel should have made sure to develop their other forces such as infantry, mobile infantry, artillery, etc. Israel did learn from this mistake, as evidenced by their eventual counter solutions. The Yom Kippur War thus reaffirmed the lessons of combined arms in a most demonstrative fashion and



the necessity of understanding one's own paradigm in light of changing circumstances. It also provides a much clearer understanding of how and why Egyptian and Israeli relations improved. There are of course many other lessons that can be gleaned from it, but these are the primary ones from the Israeli reliance on Armor in the Yom Kippur War.

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